



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,676	02/01/2001	January Kister	PRO-128	3474
30869	7590	03/17/2005	EXAMINER	
LUMEN INTELLECTUAL PROPERTY SERVICES, INC. 2345 YALE STREET, 2ND FLOOR PALO ALTO, CA 94306			TERESINSKI, JOHN	
			ART UNIT	PAPER NUMBER
			2858	

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/775,676	Applicant(s) KISTER ET AL.	
	Examiner John Teresinski	Art Unit 2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☒ Claim(s) 15 is/are allowed.
 6) ☒ Claim(s) 1-12 and 14 is/are rejected.
 7) ☒ Claim(s) 13 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,384,614 to Hager et al..

Regarding claim 1, Hager et al. disclose a single probe group having two probes (Fig. 2, elements 50,60), the two probes having a common contacting center within a probe target area (column 3 lines 15-16), each of the probes independently and conductively contacting within a guiding boundary (84) a single test terminal of a circuit chip allowing a test path resistance of the single test terminal to be measured based solely between the probes of the single probe group without affecting the circuit chip (column 2 line 60 to column 3 line 20).

Regarding claim 5, Hager et al. disclose buckling beam/spring probes (column 3 lines 15-18).

Regarding claim 9, Hager et al. disclose probe tips that are rotationally symmetric with a non-planar contact surfaces and contact the single terminal in a self centering fashion (Fig. 2 elements 54, 64).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hager et al. in view of U.S. Patent No. 6,791,344 to Cook et al..

Regarding claims 2 and 11, Hager et al. discloses the device and method as described above but does not teach compensating for voltage drop in correspondence to the operational signal path resistance. Cook et al. disclose a single probe group having two probes (Fig. 2, elements 30c and 32c) for determining a path/contact resistance of a single terminal/pad (column 3 lines 5-10) and compensating for voltage drop in correspondence to the operational signal path resistance (column 6 lines 7-12, 27-34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include compensating for voltage drop in correspondence to the operational signal path resistance as taught by Cook et al. into Hager et al. for the purpose of providing increased accuracy and sensitivity of the path resistance (column 1 lines 34-37).

Regarding claims 3 and 12, Hager et al. discloses the claimed invention except for a third probe conductor. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a third probe conductor and perform additional test path resistance measurements, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hager et al. in view of U.S. Patent No. 4,667,149 to Cohen et al..

Regarding claim 4, Hager et al. does not disclose a group of four probes and circuitry capable of recognizing a test path resistance according to a 4-Wire Ohm's Measurement. Cohen et al. disclose an electrical test probe apparatus and method for testing a circuit chip/semiconductor (column 3 lines 15-20) comprising a probe group (Fig. 1 elements 10-13) allowing a test path resistance to be measured with a group of four probes and circuitry capable of recognizing a test path resistance according to a 4-Wire Ohm's measurement (column 3 lines 15-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include four probes as taught by Cohen et al. into Hager et al. for the purpose of providing a more detailed characterization of the test path resistance.

Claims 6-8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hager et al. in view of U.S. Patent No. 4,423,373 to LeCroy.

Regarding claims 6-8, Hager et al. does not teach a bundled probe group in a single perforation of a sheath, a single perforation that is a long hole, or a single perforation in the shape of a circular hole. LeCroy teaches an electrical test probe with bundled probes in a single perforation (Fig. 3A), a long hole (Fig. 3A) and a circular opening (Fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a single perforation for the bundled probes, a long hole perforation or a circular opening

Art Unit: 2858

perforation as taught by LeCroy into Hager et al. for the purpose of permitting longitudinal movement of the probes (column 7 lines 35-40).

Regarding claim 14, Hager et al. disclose the probes having a conductive core and tips (column 2 lines 60-63). Hager et al. does not disclose an insulation layer. LeCroy discloses an insulation layer (48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an insulation layer as taught by LeCroy into Hager et al. for the purpose of preventing an electrical short circuit.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hager et al. in view of U.S. Patent No. 6,218,848 to Hembree et al..

Regarding claim 10, Hager et al. does not disclose essentially spherical probe tips. Hembree et al. disclose probe contacts with essentially spherical shape (column 7 line 11 & Figure 5A). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include spherical probe tips as taught by Hembree et al. into Hager et al. for the purpose of providing an electrically engaging probe tips that establish a good contact (column 7 lines 10-15).

Allowable Subject Matter

Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 15 is allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 13 and 15:

The primary reason for the allowance of claims 13 and 15 is the inclusion of means for averaging the resistance between the probes by dividing the determined resistance by the number of the probes in the single probe group and basing the signal compensation on the averaged resistance. It is these features found in the claim, as they are claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 2858

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

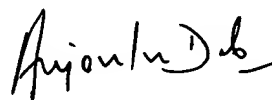
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Teresinski whose telephone number is (571) 272-2235. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JT
JT

March 14, 2005


ANJAN DEB
PRIMARY EXAMINER